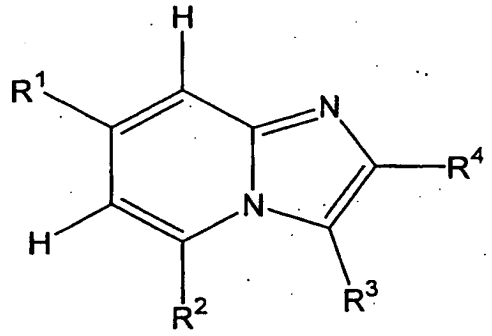
WHAT IS CLAIMED IS:

1. A method of inhibiting nitric oxide synthase in a mammal, said method comprising administering to said mammal an effective nitric oxide synthase inhibiting amount of at least one imidazo[1,2-a]-pyridine compound corresponding to formula I



I

wherein,

R^1 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkenyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkinyl radical, a C_{3-8}-cycloalkyl radical, a C_{3-8}-cycloalkyl radical which is bonded via a C_{1-8}-alkylene group, an unsubstituted or at least monosubstituted aryl or heteroaryl radical, H, F, Cl, Br, I, CN, NO_2, NH_2, $C(=O)R^5$, CO_2H, CO_2R^6, OH or OR^7;

R^2 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkenyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkinyl

radical, a C_{3-8}-cycloalkyl radical, a C_{3-8}-cycloalkyl radical which is bonded via a C_{1-8}-alkylene group, an unsubstituted or at least monosubstituted aryl or heteroaryl radical, H, F, Cl, Br, I, CN, NO_2, NH_2, $C(=O)R^5$, CO_2H, CO_2R^6 or OH;

R^3 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkenyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkinyl radical, a C_{3-8}-cycloalkyl radical, a C_{3-8}-cycloalkyl radical which is bonded via a C_{1-8}-alkylene group, an unsubstituted or at least monosubstituted aryl or heteroaryl radical, an unsubstituted or at least monosubstituted aryl or heteroaryl radical which is bonded via a C_{1-8}-alkylene group, CH_2SR^8, CH_2OR^8 or H;

R^4 represents H, an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkenyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkinyl radical, an unsubstituted or at least monosubstituted aryl or heteroaryl radical, or an unsubstituted or at least monosubstituted aryl or heteroaryl radical which is bonded via a C_{1-8}-alkylene group;

R^5 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkenyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkinyl radical, a C_{3-8}-cycloalkyl radical, a C_{3-8}-cycloalkyl radical which is bonded via a C_{1-8}-alkylene group, a C_{3-7}-heterocyclyl radical, an unsubstituted or at least monosubstituted aryl or heteroaryl radical

or an unsubstituted or at least monosubstituted aryl or heteroaryl radical which is bonded via a C_{1-8}-alkylene group;

R^6 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkenyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkinyl radical, a C_{3-8}-cycloalkyl radical, a C_{3-8}-cycloalkyl radical which is bonded via a C_{1-8}-alkylene group, an unsubstituted or at least monosubstituted aryl or heteroaryl radical or an unsubstituted or at least monosubstituted aryl or heteroaryl radical which is bonded via a C_{1-8}-alkylene group;

R^7 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkenyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkinyl radical, a C_{3-8}-cycloalkyl radical, a C_{3-8}-cycloalkyl radical which is bonded via a C_{1-8}-alkylene group, an unsubstituted or at least monosubstituted aryl or heteroaryl radical or an unsubstituted or at least monosubstituted aryl or heteroaryl radical which is bonded via a C_{1-8}-alkylene group; and

R^8 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkenyl radical, an unsubstituted or at least monosubstituted C_{2-8}-alkinyl radical, an unsubstituted or at least monosubstituted aryl or heteroaryl radical, an unsubstituted or at least monosubstituted aryl or heteroaryl radical which is bonded via a C_{1-8}-alkylene group or a C_{3-8}-cycloalkyl radical,

or a salt thereof with a physiologically acceptable acid.

2. A method according to claim 1, wherein said compound is present in the form of a free base.

3. A method according to claim 1, wherein R^1 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical, F, Cl, Br, CN, NO_2, NH_2, $C(=O)R^5$, CO_2H, CO_2R^6, OH or OR^7.

4. A method according to claim 1, wherein R^1 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical.

5. A method according to claim 1, wherein R^2 represents H.

6. A method according to claim 1, wherein R^2 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical.

7. A method according to claim 1, wherein R^3 represents H.

8. A method according to claim 1, wherein R^3 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical.

9. A method according to claim 1, wherein R^4 represents H, an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical, an unsubstituted or at least monosubstituted aryl or heteroaryl radical or an unsubstituted or at

least monosubstituted aryl or heteroaryl radical which is bonded via a C_{1-8}-alkylene group.

10. A method according to claim 1, wherein R^5 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical or an unsubstituted or at least monosubstituted aryl or heteroaryl radical.

11. A method according to claim 1, wherein R^6 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical or an unsubstituted or at least monosubstituted aryl radical.

12. A method according to claim 1, wherein R^7 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical or an unsubstituted or at least monosubstituted aryl radical.

13. A method according to claim 1, wherein R^8 represents an unsubstituted or at least monosubstituted C_{1-8}-alkyl radical or an unsubstituted or at least monosubstituted aryl or heteroaryl radical.

14. A method according to claim 1, wherein said at least one imidazo[1,2-a]-pyridine compound is selected from the group consisting of

2-(4-methoxy-phenyl)-7-methyl-imidazo[1,2-a]pyridine,

2,7-dimethyl-imidazo[1,2-a]pyridine,

7-methyl-imidazo[1,2-a]pyridine,

2-tert-butyl-7-methyl-imidazo[1,2-a]pyridine, and

salts of any of the foregoing with a physiologically acceptable acid.

15. A method according to claim 14, wherein said at least one imidazo[1,2-a]-pyridine compound is present in the form of a free base.

16. A method of treating a condition selected from the group consisting of migraine, septic shock, multiple sclerosis, Alzheimer's disease, inflammatory pain, diabetes, meningitis, or a wound in a mammal, said method comprising administering to said mammal an effective amount of a compound according to claim 1.

17. A method according to claim 16, wherein said condition is migraine.

18. A method according to claim 16, wherein said condition is septic shock.

19. A method according to claim 16, wherein said condition is multiple sclerosis.

20. A method according to claim 16, wherein said condition is Alzheimer's disease.

21. A method according to claim 16, wherein said condition is inflammatory pain.

22. A method according to claim 16, wherein said condition is diabetes.

23. A method according to claim 16, wherein said condition is meningitis.

24. A method according to claim 16, wherein said condition is a wound.